



# EQUIPMENT FOR PUMPING FUEL FROM A STORAGE TANK TO THE INTERNAL-COMBUSTION ENGINE OF A MOTOR VEHICLE

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**Cited documents:**

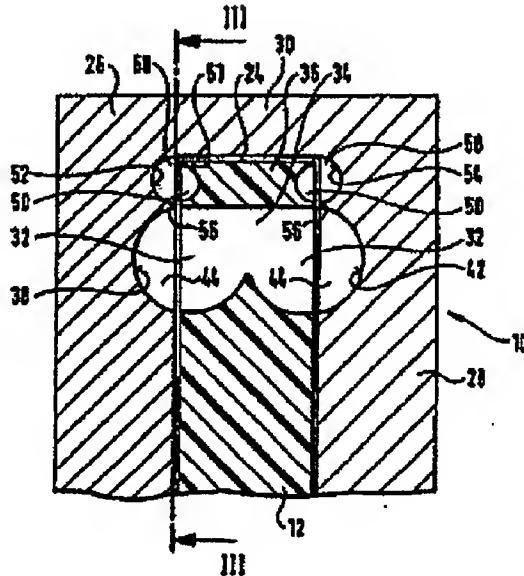
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## Abstract of WO9746809

The set of equipment has a feed pump constructed as a turbo-pump (10), with an impeller (12) rotating in a pump chamber (24) and having a crown of blades (32) set about the rim on both its faces; these crowns of blades each form a side delivery channel (44) with the grooves (38, 42) forming a partial annulus that are located in the end walls (26, 28) closing off the pump chamber (24). The radially outer ends of the blades (50) of the impeller (12) are connected to one another by an outer ring (36). The outer ring (36) of the impeller (12) also has a crown of blades (50) that form an outer flow channel (58) with each of the grooves forming a partial annulus that are located in the end walls (26, 28). The outer flow channels (58) are connected to the delivery channels (44) over part of their circumference; a pressure build-up occurs in them in the direction of rotation (11) of the impeller (12) that roughly equals the pressure build-up in the delivery channels (44), so that there is substantially no pressure difference between them. This prevents dirt being entrained into the area between the outer ring (36) of the impeller (12) and the end walls (26, 28).



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